CareTech®
Call for care

CareIP®

Digital Alarm Unit

Service manual / Technical Handbook

© 2014 Copyright CareTech AB, Rev H

Table of contents

1 REVISIONS 5
2 TECHNICAL TERMS 5
3 SAFETY INFORMATION 6
4 OVERVIEW CareIP 7
4.1 CareIP front 7
4.1.1 Indicator lights 7
4.2 CareIP back 8
4.2.1 Connection terminals 8
5 DESCRIPTION OF FUNCTIONS 9
5.1 Activating an alarm 9
5.2 Different types of alarm triggers 9
5.3 Alarm receivers 9
5.4 Alarm process 9
5.5 Log alarm 10
5.6 Test alarm 10
5.7 Inactivity alarm 11
5.7.1 Home/Away function 11
5.8 Call-back after alarm 11
5.9 Automatic answer on incoming calls 12
5.10 Intruder alarm 12
5.11 VoIP – Telephone call over internet 13
5.12 Heartbeat - activity message 13
6 INSTALLATION 14
6.1 Connection 14
6.2 Connecting external equippment 14
6.2.1 Inputs 15
6.2.2 Output 1, relay output 15
6.2.3 Output 2, transistor output 15
6.2.4 Output 3, connection to hearing loop systems 16
6.3 Installing the SIM card 17
6.3.1 GSM Only 17
6.3.2 GSM signal strength check 17
6.4 PoE 18
6.4.1 Installing PoE module 18
7 PROGRAMMING 19
7.1 Programming of radio unit 19
7.1.1 Programming of radio transmitter 19
7.1.2 Check radio coverage 19
7.1.3 Erase programmed radio units 19
7.2 Recording of speech message (ID) 19
7.3 i-care Online 20
7.4 Local programming 21
7.5 Service Mode 22
7.5.1 Activate Service Mode 22
7.5.2 Service Mode functions 22
7.5.3 Navigate in Service Mode 23
7.6 CareIP settings 24
7.6.1 IP settings 24
7.6.2 SIP Settings 26
7.6.3 GSM/GPRS settings 27

7.6.4 Alarm handling 28
7.6.5 Function settings 29
7.6.6 Settings buttons/inputs/output 33
7.6.7 Configuration of programmed radio units 34
8 ALARM TYPES 35
9 MAINTENANCE 37
9.1 Cleaning 37
9.2 Replacing the battery 37
10 ACCESSORIES 38
11 TECHNICAL DATA 39
12 ENVIRONMENTAL INFORMATION 40

1 REVISIONS

Rev	Date	Filename	Notes
A	08/02/2010	Th_CareIP_En_01	First release
B	16/04/2010	Th_CareIP_En_02	CareIP Mobile functions added
C	13/09/2010	Th_CareIP_En_03	Additional information CareIP Mobile added
D	18/01/2011	Th_CareIP_En_04	For V1.1.2.0 and newer
E	2011-11-14	Th_CareIP_En_05	Minor clarifications
F	2013-11-20	Th_CareIP_En_06	For V1.2.3.0 and newer
G	2013-12-16	Th_CareIP_En_07	Minor additions
H	2014-02-24	Th_CareIP_Sv_08	Description for outputs added

2 TECHNICAL TERMS

Abbreviation	**Meaning**
DHCP	Dynamic Host Configuration Protocol – Dynamic assignment of IP-addresses
SIP	Session Initiation Protocol – Protocol for initiation of interactive multimedia sessions
RTP	Real-time Transport Protocol – Protocol specified for carrying data streams in real time e.g. audio or video
VoIP	Voice over Internet Protocol – Transfer of voice calls via networks based in the Internet protocol (IP)
DNS	Domain Name System - System that translates ”names” (FQDN) to IP-addresses
FQDN	Fully Qualified Domain Name
SNTP	Simple Network Time Protocol – Servers that provides a ”time service”
Peer-to-peer	Two equal units that communicates with each other.
Gateway	A network node that connects two different networks that can use different network protocols or topologies.
Netmask	Net mask - “Mask” that together with the IP-address defines the local network number and ”host”-address
URI	Uniform Resource Identifier – string that is used to identify a resource.
CIP	CareTech IP – Protocol for digital alarm transfer
Proxyserver	Server that acts as an intermediary for requests from units that are seeking resources from other servers

3 SAFETY INFORMATION

The compartment covers on the reverse may be opened only by authorized person.
Only use recommended battery type as stated under accessories. CAUTION – Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries shall be done in an environmental friendly way. See environmental information.
Only use power supply recommended in accessories.

Always read and follow the safety information accompanied by this symbol

Important information

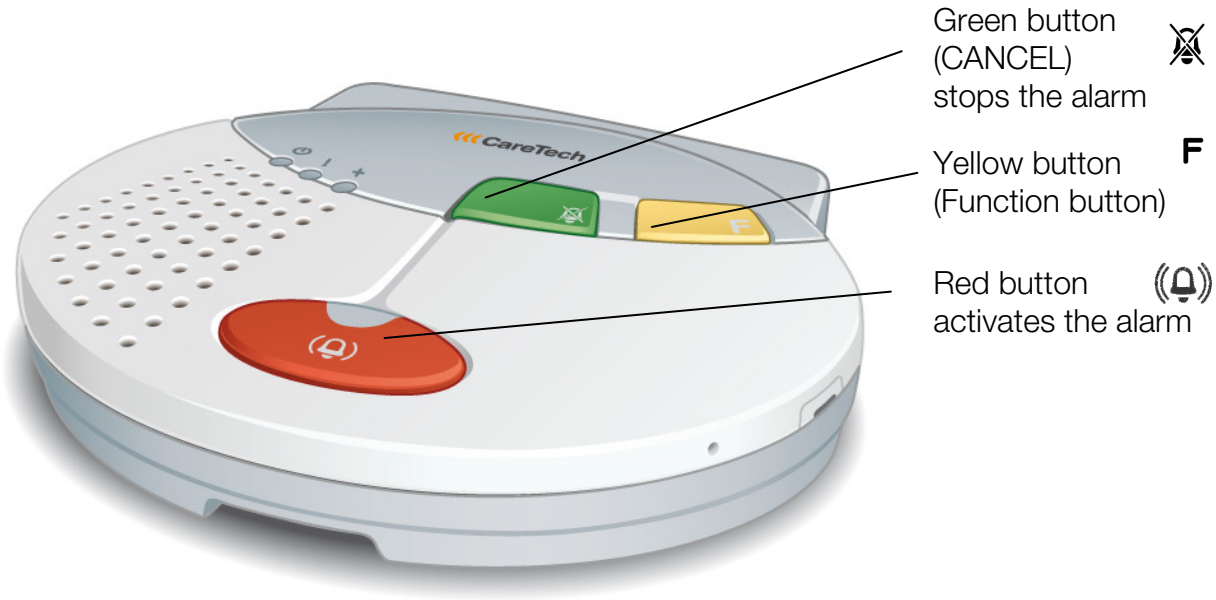
All systems using radio and network communication are subject to interference beyond the user's control.
Products from CareTech are designed to minimise the impact of such interference. Nevertheless, the user must be aware that system components can be subjected to interference or other influences that may cause malfunction.
It is therefore important to regularly check that every part of the system works in all areas, especially radio communications. Contact your supplier immediately in case of any suspected malfunction.
Users should pay particular attention to the risk of disruption from products which communicate using the same or adjacent frequencies.

When connecting or disconnecting external accessories, CareIP shall be turned OFF and the power supply shall be disconnected from the unit.

For further information, please contact your supplier.

4 OVERVIEW CareIP

4.1 CareIP front



4.1.1 Indicator lights

On, (Green)

Steady light: Mains power.
Flashing light: Mains failure or radio programming mode.

Alarm, (Red)

Steady light: Idle mode.
Slow flashing: Alarm state.

Error, (Red)

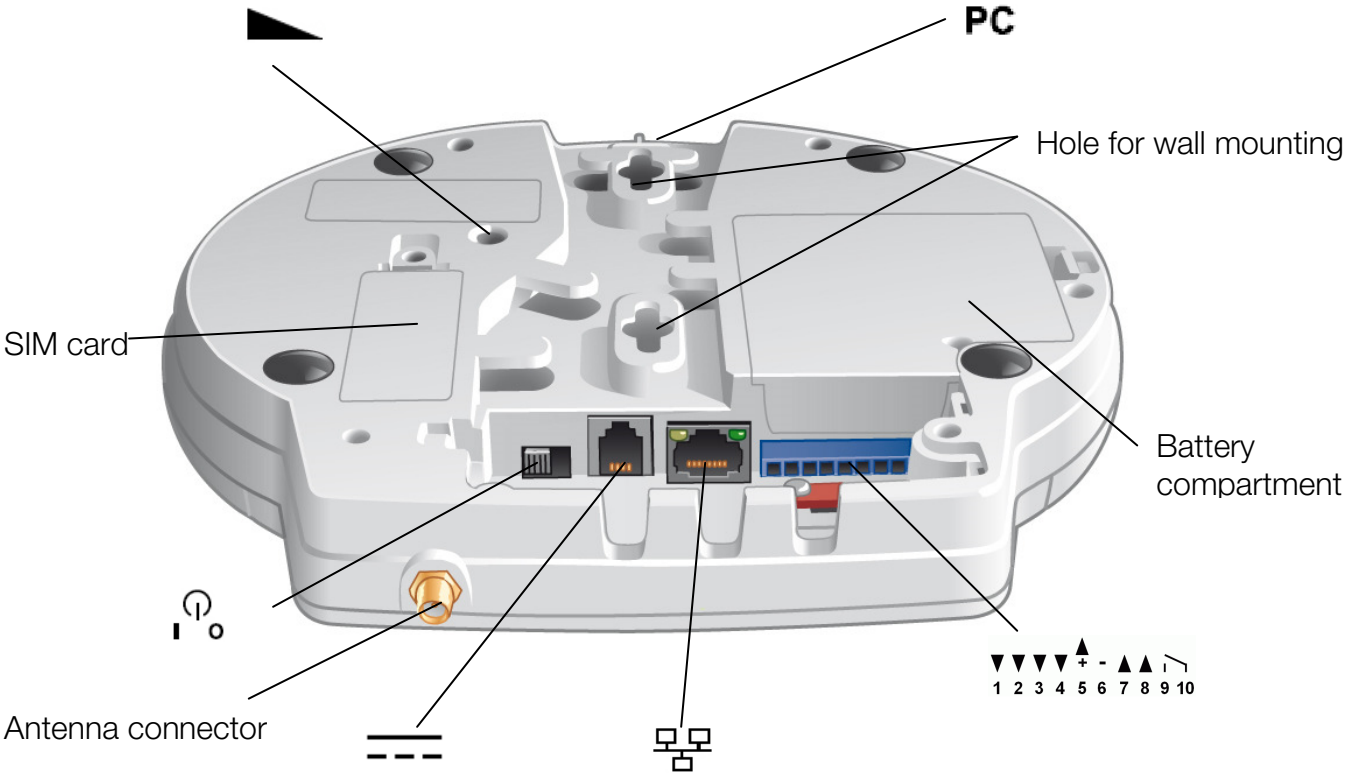
Off: Idle mode.
Steady light: Problem with Ethernet link or IP configuration.
Slow flashing: Registration to SIP server failed.

Status, (Red/Green)

Off: Idle mode.
Steady red light: No connection to GSM network.
Alternating Red/Green: Away mode

4.2 CareIP back

4.2.1 Connection terminals



Volume control: Loudspeaker volume adjustable in eight levels.

PC Pull cord: Attachment for pull cord when wall mounted.

Power switch: Turns CareIP ON and OFF.

DC IN: Connection for power supply 7,5VDC

Ethernet port: Connection for cable from broadband/network.

1 2 3 4 5 6 7 8 9 10 I/O connectors (wired).

5 DESCRIPTION OF FUNCTIONS

CareIP is a digital alarm unit that uses SIP protocol for communication. SIP is a standard protocol for transfer of speech and video over broadband connections.

If CareIP are connected to a ”Firewall” following UDP ports must be open for outgoing traffic.

Port 5060	SIP protocol.
Port 10000-10999	RTP protocol.
Port 69	TFTP protocol (programming).
Port 123	SNTP
Port 53	DNS.

5.1 Activating an alarm

Activation of an alarm can be done by.

- The red button on CareIP.
- Radio unit that is programmed to CareIP.
- Trigger connected to input.
- Pull cord, when wall mounted.

5.2 Different types of alarm triggers

Ten radio transmitters can be programmed with the CareIP, e.g. a radio trigger and four wired triggers.

5.3 Alarm receivers

Up to ten Contacts and five different call sequences can be programmed. Alarm against alarm centre is identified by an alarm code that’s programmed in CareIP, Alarm to telephone is identified through a recorded speech message (ID). The receiver can establish a speech connection with the person that has activated the alarm and take appropriate actions.

5.4 Alarm process

CareIP has ten programmable contacts (alarm receivers), the receivers can be a SIP telephone, mobile telephone or an Alarm centre (in this case a alarm code must be set).

The unit has five alarm sequence lists that are programmable to call the contacts in any order, as default all alarm types uses sequence one, any of the alarm types are programmable to use any of the five sequences.

The default setting for each alarm sequence list is: contact 1 -> contact 2 -> contact 3 -> ….. contact 10.
When an alarm is activated, CareIP first checks which call sequence shall be used, after that CareIP calls the alarm receivers according to the programmed order in the call sequence until the alarm is acknowledged or the maximum number of call attempts is reached.
With acknowledgement means that the receiver confirms that the alarm is received, this is made with the ”4” key if the receiver is a SIP telephone/ mobile phone or if the receiver is an alarm centre by sending an acknowledgement message to CareIP.

If the receiver is a SIP telephone or a mobile phone at e.g. neighbour or relative, CareIP identifies itself with a recorded speech message. When an alarm is received at an alarm centre the information (alarm code and alarm type) is sent digitally to the receiver and no synthetic speech is sent.

If the alarm is a so-called speech connected alarm e.g. Emergency alarm, there is possibility to establish a two way speech connection. If the alarm is a so-called technical alarm e.g. Battery alarm there will not be any speech connection.

Disconnection of an alarm is made with the”0” key if the receiver is a telephone or by a disconnection command from a alarm centre. Care IP automatically disconnects the call after that the programmed connection time has elapsed (default set to 150 sec), this time can be extended with the ”4” key on the telephone or by a command from the alarm centre.

5.5 Log alarm

If the function for log alarm (acknowledgement message, alarm type 89) is activated, the unit automatically sends a log alarm to a alarm central after that an alarm is received on a telephone. This function is used to get documentation on alarms that are received on telephone. The log alarm is called out according to the call sequence for alarm type 89.

5.6 Test alarm

Test alarm is used to monitor the unit’s functionality and that the connection works correctly. If the test alarm function is activated a silent alarm will be sent according to the call sequence for alarm type 26. The time interval for test alarms can be set between 1 and 999 hours.

5.7 Inactivity alarm

Inactivity alarm is a function that is used for sending an alarm (alarm type 14) if no activity occurs during a certain pre-programmed time. When inactivity alarm is activated an internal timer starts that generates an alarm if it is not restored within the set time. After every reset the timer will restart.

The inactivity alarm is reset and the time will be recounted from the start at the following events:

- If any of the units buttons (Red, Yellow or Green) are pressed. Normally the Green button is used for resetting the inactivity alarm (activity button).
- Activation of any alarm input on CareIP. If an input is programmed to transmit alarm type 12 (Reset) the units alarm function will not be activated, only the timer for the inactivity alarm will be reset.
- Activation of a programmed radio transmitter. If the transmitter is programmed to transmit alarm type 12 (Reset) the units alarm function will not be activated.

If the function pre-alert for inactivity alarm is activated, the unit will through an audible signal once every minute during the set time to alert the user that the time for inactivity alarm is about to expire.

5.7.1 Home/Away function

Temporary suspension of inactivity alarm can be made if the Home/Away function is activated. In connection with activation of the function you choose which button (Yellow or Green) to be used for temporary suspension of inactivity alarm, normally yellow button is used for this. The message on temporary suspension of inactivity alarm is transmitted to the alarm receiver as alarm type 57(voice connected) or alarm type 98(not voice connected). Away mode is indicated on the unit by the + LED that alternates between Red and Green light.

Reconnection of inactivity alarm is made by pressing the green button if the yellow button is used for temporary suspension or by pressing the yellow button if the green button is used for temporary suspension. The message on reconnection of inactivity alarm is transmitted to the alarm receiver as alarm type 56(voice connected) or alarm type 97(not voice connected).

5.8 Call-back after alarm

With the function call-back after alarm means that after an alarm is received by a response center you shall call up the CareIP from a SIP telephone or from an landline/mobile telephone (CareIP mobile) to acknowledge the alarm.

CareIP then automatically answers on the incoming call, speech connection can then be established by pressing “4” on the telephone. The acknowledgement by pressing ”4” has to be made within ten seconds after that the unit has answered

on the incoming call. Disconnection always has to be made by pressing “0” on the phone. The function is active during the programmable time called call-back time. If the unit doesn’t be called up or reset by the green button on the unit the alarm will be sent again after that the programmed call-back time has elapsed.

Shorter time than two minutes shall not be programmed.

A log alarm is sent to the response center after call-back if the function log alarm is activated.

If the alarm is reset by pressing the green button on the unit during the call-back time a reset message with alarm type 12 is sent to the response center.

The unit calls the programmed number of call attempts if no reset is made a time disconnection message with alarm type 66 is sent to the response center.

5.9 Automatic answer on incoming calls

CareIP can be programmed to answer automatically on incoming calls after a certain time. The function is used to facilitate call-up of the unit and e.g. operate the relay. If the holder has permitted this, the function can be used for automatic voice connection upon call-up.

5.10 Intruder alarm

CareIP can be used as an intruder Alarm Centre. The intruder alarms can be connected/disconnected using a radio button that disconnects the alarm when pressed briefly and connects it when pressed for approx. 4 sec. ERIK/ELLIOT radio-alarm button has two buttons that on can be programmed for intruder alarm ON and OFF.

When the alarm is connected, the relay emits three quick pulses on a output. In the event of intruder alarm OFF the relay emits a quick pulse. The function can be set (see *Activate output x on Intruder alarm*).

There are possible to send message about ON/OFF to Alarm Central (see *Register Intruder alarm ON/OFF*).

When the intruder alarm is OFF Alarm Type 07, Intruder Alarm, is not recorded. Other alarms have normal function.

The CareIP emits audible signals to indicate which function has been activated. If it has voice synthesis activated, you can also receive the voice message 'Intruder alarm off' or 'Intruder alarm on'. Connection of the intruder alarm is delayed for 30 seconds. During the delay period tone signals are emitted through the loudspeaker.

The relay output is activated for approx. 3-5 minutes in the event of an alarm and can be switched off by pressing '9' on the receiving phone (‘5’ in Tunstall protocol) or by ‘Intruder alarm OFF’ after the alarm has been disconnected from the emergency service center.

In the event of an intruder alarm, the CareIP calls according to chosen call sequence. An audible signal will only be given via the speaker after a successful call has been completed. This signal continues for 3-5 minutes, and can only be stopped using the ON/OFF radio button, Input 2 after disconnection from the emergency service center or by the recipient pressing '9' ('5' in Tunstall mode). Sensors for intruder alarms must be of Alarm Type 07.

5.11 VoIP – Telephone call over internet

VoIP (Voice over IP) is a way to make telephone calls over a network/broadband connection (Internet), the communication is handled by two different protocols, SIP and RTP.

A short description:
SIP is used for the communication between CareIP and the alarm receiver for e.g. initiate a connection, send alarm information (alarm code and alarm type), handle the speech direction and disconnection of the alarm.
RTP is used for sending audio streams between CareIP and the receiver.

5.12 Heartbeat - activity message

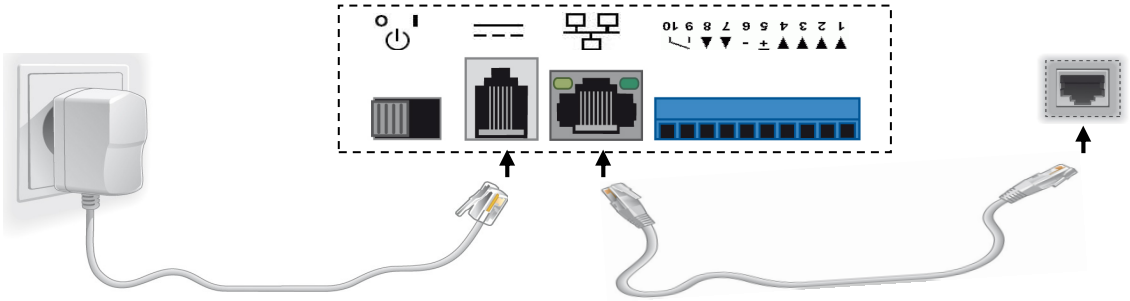
Heartbeat is a way to monitor the unit’s function. The monitoring works in the way that the unit sends an SIP message ”Heartbeat” to a server with a programmed time interval. In the messages the unit can include information about operational disruptions ex. mains failure, battery faults and other types of interference. If there is a fault in the IP communication from the unit the problem is recorded by the server trough missing ”Heartbeat” from the unit.

This function must be activated if the unit shall be administrated trough i-care online. The function is activated by programming of ”Heartbeat period” and ”i-care online server”, on CareIP Mobile the ”APN” must be programmed.

6 INSTALLATION

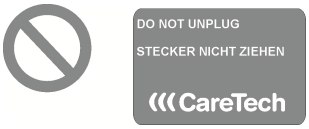
6.1 Connection

The CareIP is connected to the broadband/network via the network cable.
CareIP shall always be connected to the network as near incoming broadband as possible to avoid other equipment to affects the function.
Power is supplied via the power supply from a wall socket.



- Connect the network cable from the broadband/network to the Ethernet socket 品 .
- Connect the power supply to the wall socket and the power supply lead to the DC input socket ⎓.
- Turn the power switch ⏻ to the **I** position. Check that the “ON” indicator lamp has a steady green light.

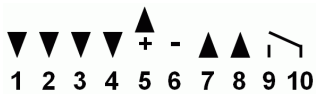
The power supply shall be placed so the information text “Do not to unplug” is visible.



Note! Only use network cable and power supply according to specification under accessories.

6.2 Connecting external equippment

CareIP are equipped with a connection terminal for wire connection of external equipment, the terminal is located on the back of CareIP.

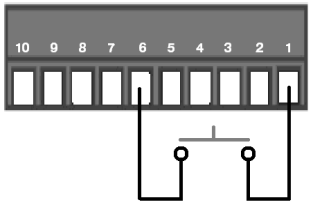


I/O Connections (wire).

1-4: Inputs (Normally closed / Normally open to GND).
5: DC out.
6: GND.
7: Output 3, connection to hearing loop systems
8: Output 2, close contact to GND through transistor (max. 70mA)
9: Output 1, relay output (+) (max. 0,7A).
10: Output 1, relay output (-).

6.2.1 Inputs

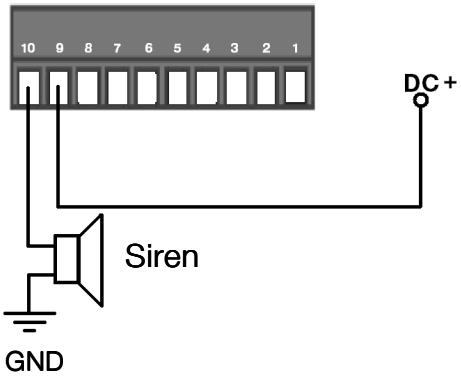
The unit has four inputs that can be programmed to generate an alarm with selected alarm type when connected/disconnected from the units GND (NC/NO).



Switch connected between terminal 6 (GND) and terminal 1 (input 1)

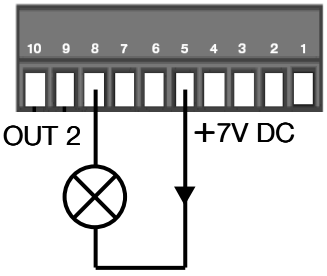
6.2.2 Output 1, relay output

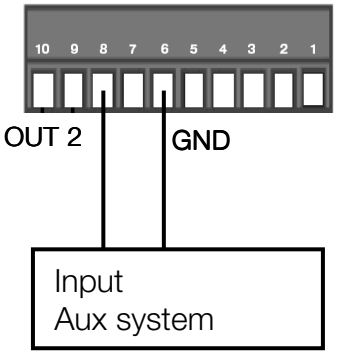
The relay output on the unit can be used for activation of e.g. a siren or an input in other systems (max. 0,7A). Connection (1 sec) occurs during speech connection when the alarm receiver sends a command (DTMF 9). **Note! Connect positive connection to terminal 9.** Can also be activated by all alarm types with speech or any specific alarm type.



6.2.3 Output 2, transistor output

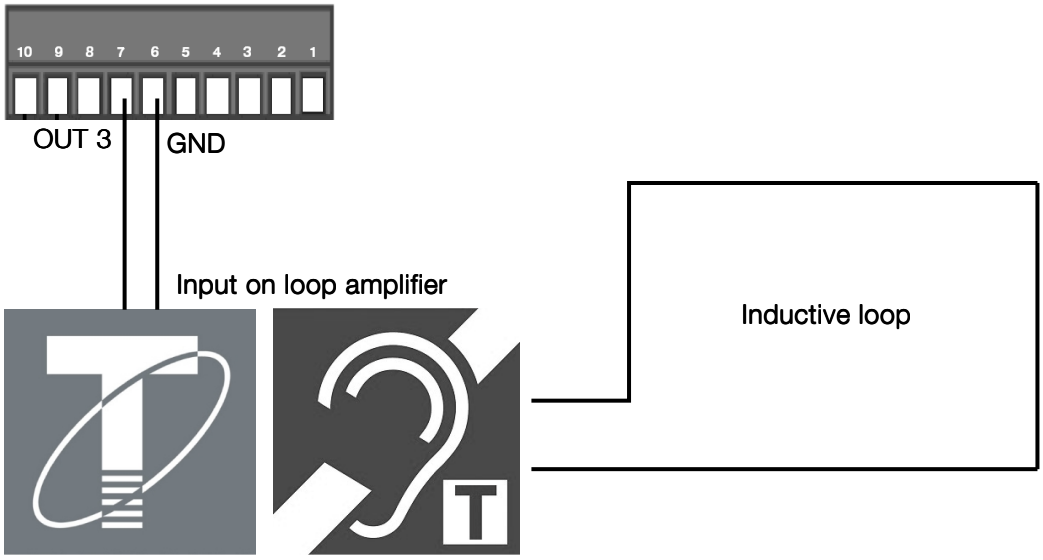
Output 2 on the unit can be used for activation of e.g. an input in other systems (max. 70mA). The output closes to GND through a transistor upon activation. Can be activated by all alarm types with speech or any specific alarm type.





6.2.4 Output 3, connection to hearing loop systems

Output 3 on the unit can be used for connection to a hearing loop system to amplify the audio for persons with hearing impairment. Designed for loop amplifiers with a 5-10kΩ microphone- or line input. The installation should be adjusted and verified with a FSM field strength meter according to IEC 60118-4.

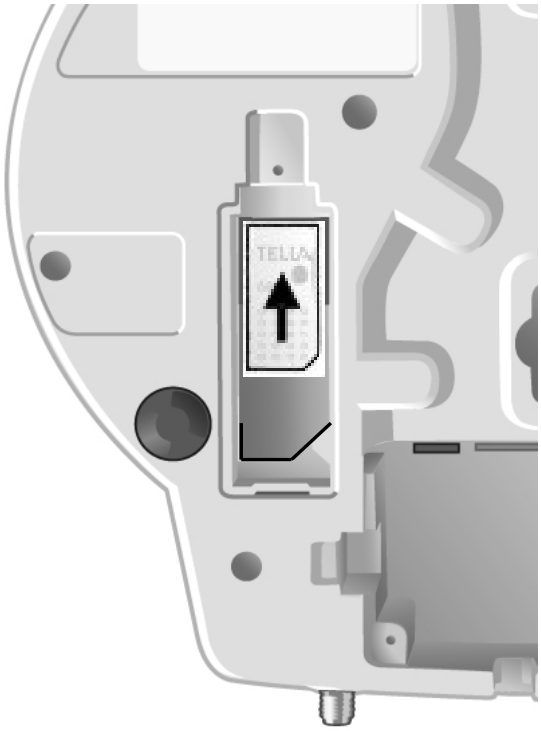


Note! When connecting or disconnecting external equipment shall the unit be turned off and power/network disconnected.

6.3 Installing the SIM card

(Exclusively CareIP Mobile)

- Unscrew the safety screw for the SIM card compartment cover.
- Remove the compartment cover.
- Install the SIM card according to picture below; note the markings on the card.
- Mount the cover and the safety screw for the SIM card compartment.



6.3.1 GSM Only

If CareIP Mobile is installed without Ethernet connection the function “Deactivation of Ethernet fault indication” shall be activated. This function is activated along with the other IP settings.

6.3.2 GSM signal strength check

Signal strength can be checked with help of the service menu, see section service mode. The signal strength will be stated as a value between 0 and 31, the value shall exceed 15 for proper functionality. If the value is less than 15 CareIP shall be relocated to an area with better GSM reception or the antenna should be replaced by an antenna with better performance.

NOTE! 1234 or 0000 are not appropriate PIN codes for the SIM card, if any of these PIN codes are used, the code should be changed before installation. Change of PIN code is preferably done using a mobile phone.

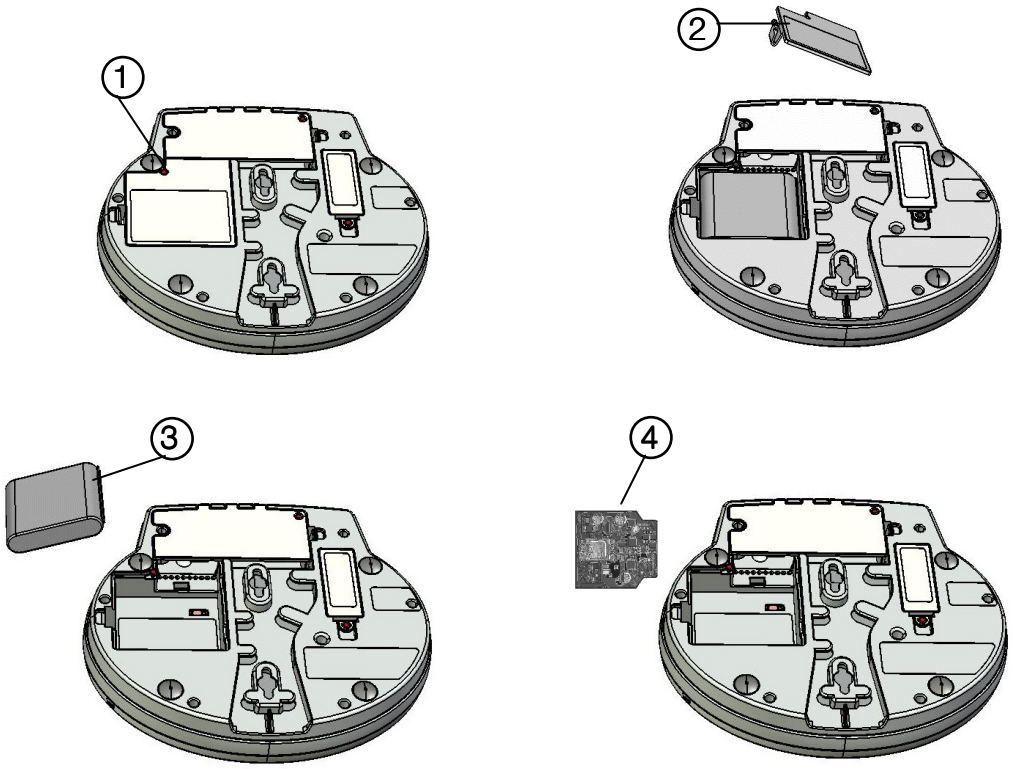
6.4 PoE

Power over Ethernet (PoE) is a technology to power network devices by transmitting electrical power along with data in Ethernet cables. Power can come from a power supply within a PoE-enabled networking device such as an Ethernet switch or can be injected into a cable run with a midspan power supply. Direct injection from standard 48 V DC battery power arrays are possible; this enables critical infrastructure to run more easily in outages, and make power rationing decisions centrally for all the PoE devices. PoE uses only one type of connector, an 8P8C (RJ45) connector.

This technology is useful for powering Ethernet connected units ex. CareIP.

6.4.1 Installing PoE module

- Unscrew the safety screw ① for the battery compartment door.
- Remove the battery compartment door ②.
- Detach the battery connector and remove the battery ③ .
- Mount the PoE module ④ in the CareIP.
- Refit the battery compartment door and the safety screw.



NOTE! In case PoE is used as power supply for CareIP, no battery for backup power can be mounted in the unit. In this case the backup power must be integrated in the PoE system.

7 PROGRAMMING

The programming of functions, contacts, alarm codes and settings in CareIP are remote programmed trough i-Care online or locally programmed with a computer and the software CareTech CS2. Radio pendants and other radio units can be programmed directly on CareIP without use of a computer.

7.1 Programming of radio unit

Up to ten radio units can be programmed in CareIP.

7.1.1 Programming of radio transmitter

- Hold down the green button approx. four sec. until the green ON LED ⏻ starts flashing.
- Activate the radio transmitter. When CareIP receives the radio signal a tone signal is played.
- Confirm the programming by pressing the red button on CareIP.

7.1.2 Check radio coverage

This shall always be performed in connection with the installation.

- Hold down the green button approx. four sec. until the green ON LED ⏻ starts flashing.
- Press the button on the radio pendant. When CareIP receives the radio signal a tone signal is played. Repeat this in all areas where the alarm shall function.

7.1.3 Erase programmed radio units

This erases ALL programmed radio units.

- Hold down the green button approx. four sec. until the green ON LED ⏻ starts flashing.
- Press the volume control button. The deletion is confirmed by a tone signal.

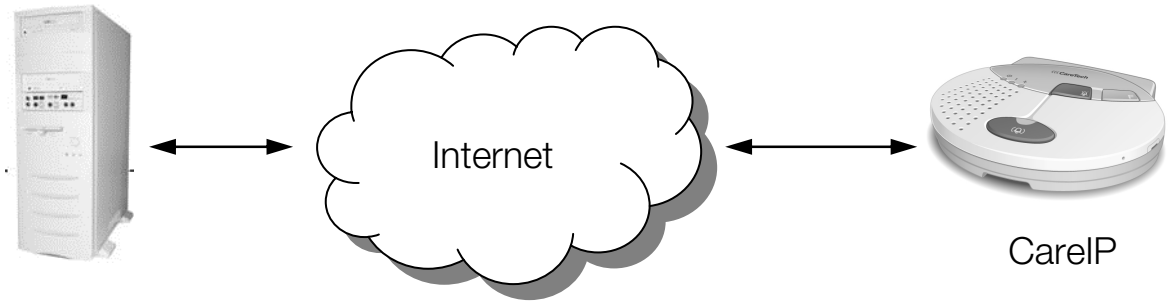
7.2 Recording of speech message (ID)

The speech message is used for identification when a SIP phone is used as alarm receiver.

- Hold in the green button approx. four sec. until the green ON LED starts flashing.
- Hold in the yellow button approx. four sec until a tone signal is heard.
- Dictate the approx. 4 s message e.g. ”Jane Doe 3 High Road, Anytown” approx. 50 cm from the microphone.
- The message will automatically be played back by way of control.

7.3 i-care Online

i-care Online is a web based service for easy handling, programming and monitoring of your units. The service is accessible around the clock and it is always possible in real time to see the status of deployed CareIP.



i-Care Online

To be able to administrate the units you must be logged on to i-care online, username and password are provided by your supplier.

New units must be activated in i-Care Online; to be able to activate a unit you must have the serial number of the unit.

The unit must be connected to a network that uses DHCP (Dynamic Host Configuration Protocol) and have internet access. If static IP addresses are used this must be configured in CareIP.

When the unit is turned ON the red LED located under the exclamation mark will light up for a few seconds after that only the green LED shall be lit. Now you can see the status of the unit under ”deployed units” in i-care Online.

Depending on permissions, you now can read out and program the unit.

When programming the unit, it is updated in several steps; first all parameters are sent to the unit after that the update is verified and finally a validation are made. Depending on network conditions and other this can take up to one minute.

Monitoring of the unit is done by that CareIP sends a ”Heartbeat” (activity message) to the i-care online server. These messages contain for example information about power failure and when power is restored. If there is a problem with the IP communication from the unit it is recorded by the i-care online server trough missing ”Heart beat”. The server may in turn alert the disruption to the customer.

7.4 Local programming

Local programming of the CareIP can be done with a computer and software CareTech CS2. To be able to program and read out the CareIP settings must ”Service Mode” be activated (see section Service mode).

To connect against CareIP the unit and the computer must be connected to the same network and the IP address for the unit must be known.

The units IP address you can read out with help of ”Service Mode”.

The software CS2 is divided in a number of different sections.

IP Settings
Network settings for the unit.

SIP Settings
SIP settings for the unit.

GSM/GPRS
Settings for GSM/GPRS (Requirements: GSM module installed)

Alarm Management
Management of contacts, call sequences and alarm types.

Additional Settings
Other settings and functions in the unit.

Alarm Triggers
Settings for radio units and inputs.

Voice Synthesis & Firmware
Update of the firmware and synthetic speech in the unit.

For further information see user guide for CareTech CS2.

7.5 Service Mode

CareIP is equipped with a ”Service Mode” that must be activated when local programming of the unit is done.
In ”Service Mode” there is a possibility to make some setting without using a computer. Synthetic speech (English) will guide you in Service Mode.

7.5.1 Activate Service Mode

Hold in the Function button (Yellow button) for approx. 4 sec. until a ”beep” sounds, release the button, press within 4 sec. on the Volume control button (use appropriate tool).
You will hear synthetic speech ”Service mode”.

For navigation between the different choices you use the Green button(<- Back), Yellow button(Forward ->) and Red button(choose)on CareIP.

In Service Mode you find following choices.

- User.
- Expert.
- Exit.

7.5.2 Service Mode functions

- User - Use Red button to enter “User Mode”. In “User Mode” there are following choices.
  - Connection information – Use Red button to get a synthetic voice that gives you the IP-address, ”Static/Dynamic IP-configuration” and ”Ethernet link working/not working”.
  - GSM – Use Red button to get a synthetic voice that gives you the signal strength for GSM network.
  - Test call – Use Red button to choose “Test call Mode”, use Yellow/Green button to choose which of the programmed contacts that you will call. Use the Red button to make a test call to the chosen contact.
  - Exit – Use Red button to exit “User Mode”.

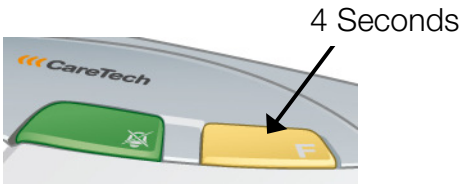
- Expert - Use Red button to enter “Expert Mode”. In “Expert Mode” there are following choices.
  - Connection mode – Use Red button to shift between static or dynamic IP-configuration.
  - Default reset – Use Red button to make a default setting of your CareIP. The unit is configured for dynamic IP (DHCP-client).
  - Update CareIP – Use Red button to connect against CareTech’s update server and download the latest firmware speech images.(Note: There must be a new configuration for the unit posted on the server and CareIP must have internet access for this to work).

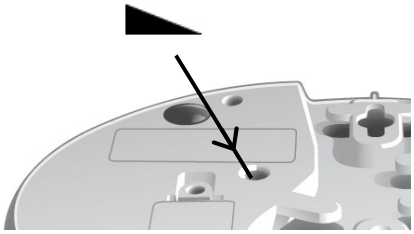
- **Firmware** – Use **Red button** to get a synthetic voice gives the firmware version for the unit.
- **Exit** – Use **Red button** to exit “Expert Mode”.

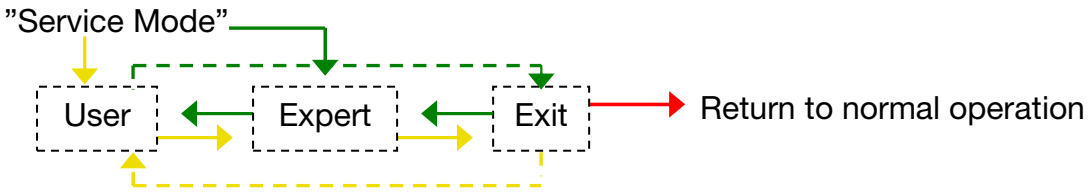
- **Exit** – Use **Red button** to exit Service Mode (CareIP automatically exits Service Mode 40 sec. after latest key press).

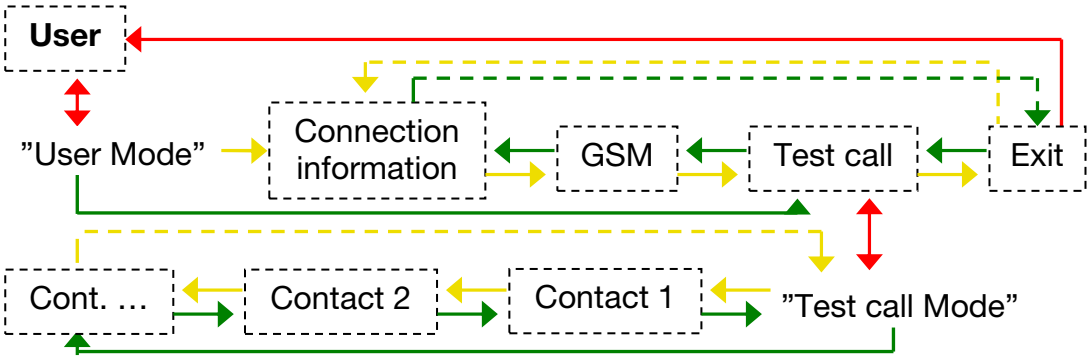
7.5.3 Navigate in Service Mode

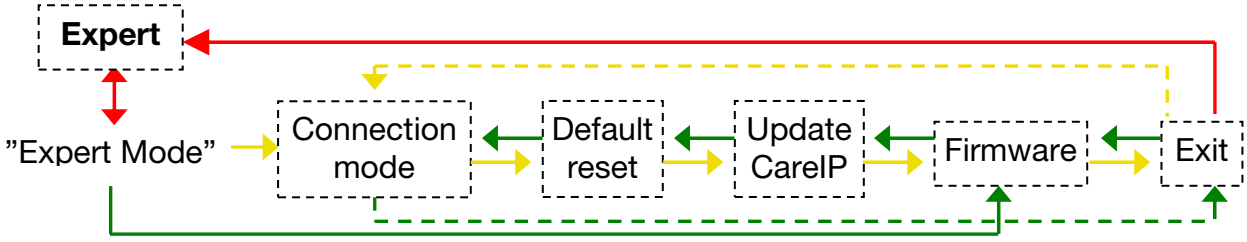
Activate Service Mode











7.6 CareIP settings

Following settings can be programmed in CareIP

7.6.1 IP settings

Network settings for CareIP.

DHCP-client

Yes = CareIP is automatically assigned an IP address from the network.
No = the network uses static IP addresses.

Default value: Yes

Netmask

Netmask for the network (Default value: 255.255.255.0)

Standard-gateway

Gateway address (Default value: 0.0.0.0)

Primary DNS-server

Address for primary DNS-server (Default value: 0.0.0.0)

Secondary DNS-server

Address for secondary DNS-server (Default value: 0.0.0.0)

SNTP-server

Address for timeserver that is used for automatic update of date and time.

(Default value: No address set)

Time zone

Shall be set if SNTP-server is activated (Default value: GMT)

Ethernet settings

Settings for Ethernet connection
Choice = Auto, 10Mbit/s half-duplex, 10Mbit/s full-duplex, 100Mbit/s half-duplex, 100Mbit/s full-duplex. (Default value: Auto)

Deactivation of Ethernet fault indication

Deactivates the Ethernet network fault indication.
Note! Only used for CareIP Mobile without Ethernet connection.
Electable: Yes/No (Default value: No)

i-care Online Server

It's address (Default value: The units S/N@contact.icareonline.com)

(ex. 7800001@contact.icareonline.com)

i-Care Download Server (TFTP)

Update server address for unit software updates.

(Default value: update.icareonline.com)

i-Care CM Server

Address to i-Care Care Management server

TFTP activation

Activation of TFTP for programming of CareIP, this function is normally only activated when you enter ”Service Mode” on the unit. This function should only be used if the unit is connected in a local network.
Electable: Yes/no

Default value: No

HeartBeat Period

Time between activity messages to i-Care online server
(must be activated if remote administration from i-care online is used)
Time in minutes 0-20, 0 = Not activated. (Default value: 2)

UMO server port

Answer-/service port for UMO-xml alarm (normally 80)

Own GSMNo

SIM-card’s mobile number with country code (without starting zeroes, ex 4670123456789), for UMO-xml alarm and SCAIP-GSM

UMO user

User name for UMO-xml alarm

UMO password

Password for UMO-xml alarm

7.6.2 SIP Settings

Settings for the SIP and Proxy server handling.

SIP - Display name

The information presented in the display if alarm is sent to a SIP telephone.

SIP - User name

CareIP contact URI

SIP - Authentication name

User name for authentication against Proxy/Registrar server (assigned by the server administrator)

SIP - Authentication password

Password for authentication against Proxy/Registrar server (assigned by the server administrator)

SIP - Domain

SIP-domain is set here if used.

SIP-port

Answer/service port for SIP (normally 5060)

RTP-port

Answer/service port for RTP, Port 10000-10999 (normally 10000)

DTMF payload type

Setting for how DTMF is transmitted over RTP (normally 101–do not change)

SIP - Proxy address

Proxy server address.

SIP - Proxy port

Answer/service port for Proxy server (normally 5060)

SIP - Registrar address

Address to registrar server.

SIP - Registrar port

Answer/service port for registrar server (normally 5060)

SIP - Register time

Time between registrations to Proxy/Registrar server (normally 300 sec.)

7.6.3 GSM/GPRS settings

Settings for GSM/GPRS

GSM - Pin Code

Pin code for SIM card.

GSM - Access Point Name

Address to the Network operators access point.
(Activates GPRS – Data communication for i-care online remote administration)

GSM - Authentication Type

Type of authentication against the network operator.

GSM - Authentication Name

Authentication name.

GSM - Authentication Password

Password.

7.6.4 Alarm handling

Settings for contacts call sequences and alarm types.

Contact 1-10

Address or telephone no. for each contact and what protocol is used for alarm transfer.

SIP =	Alarm against SIP telephone, identified by speech message.
CIP =	Alarm against digital Alarm Centre/Gateway, identified through alarm code and alarm type.
GSM =	Alarm against telephone/analogue alarm receiver, identified by speech message/alarm code and alarm type. DTMF-protocol is electable: (0-only telephone, 1- telephone +CPC, 2- telephone +Tunstall, 3- telephone+CPC+Tunstall(Default 3))
GSM-UMO=	Alarm against a digital Alarm Centre (UMO-xml), identified through alarm code and alarm type.
SCAIP=	Alarm against a digital Alarm Centre (SCAIP) identified through alarm code and alarm type.
SCAIP-GSM=	Alarm against a digital Alarm Centre (SCAIP), identified through alarm code and alarm type.

Call sequence 1-5

Settings of what contacts are used and in which order they shall be called.

(Default value: call sequence 1 = contact 1-> contact 2->……contact 10)

Alarm type 1-99

Setting of what call sequence each alarm type shall use.

(Default value: call sequence 1)

7.6.5 Function settings

Speaker volume

Adjustable in eight steps (0-7), also possible with the units volume control. (Default value: 5)

Speaker settings during i-Care operations

Speaker settings that shall be used during i-Care operations (operation monitoring), and the time interval when the settings shall be valid.

Adjustable in nine steps (0-8, 0=off). Default value: 6

Time interval From – To Default value: 00:00 – 00:00

Microphone volume

Adjustable in five steps (0-4) (Default value: 2)

Answer incoming calls with alarm button

Allows answering on incoming calls with radio trigger or red button on CareIP.
Electable: Yes/No (Default value: No)

Pre alarm

Time that CareIP waits before call out after that an alarm is activated.
Electable: 0-99 seconds (Default value = 0)

Call signal in speaker

Specifies if CareIP shall play tones in loudspeaker on incoming calls.
Electable: Yes/No (Default value: No)

Time between call attempts

The time that the unit waits between call attempts.
Electable: 1-999 seconds (Default value: 10)

Number of call attempts

The number of call attempts the unit does before the alarm is cancelled if it's not getting any answer.
Electable: 1-99 attempts. (Default value: 15)

Call out time

The time that the unit tries to call a contact before it calls the next contact in the call sequence.
Electable: 1-255 seconds (Default value: 40)

Connection time

Time before the alarm is automatically disconnected; the time may be extended from the Alarm Centre by a update command or with ”4” from the telephone. The unit sends an alert signal to the alarm receiver fifteen seconds before the alarm is disconnected.
Electable: 1-255 seconds (Default value: 150)

Answer incoming calls automatically

The unit will automatically answer on incoming calls after the set time.
Time electable in seconds 0-255, 0 = not activated. (Default value: 0)

Call back time

With call back after alarm means that after an alarm is received by an Alarm Centre it is possible to call up the CareIP that automatically answers on incoming calls and establish a speech connection when pressing ”4” on the phone. CareIP answers on incoming calls during the programmed call back-time. If the unit not receives a call or is acknowledged by pressing the green button, the alarm will be repeated after the programmed call back-time has elapsed.
Call back-time electable in minutes 0-99, 0 = not activated. (Default value: 0)

Log alarm

If the function log alarm is activated, CareIP will automatically send an log alarm (acknowledgement message, alarm type 89) to the alarm receiver after that an alarm is received on a SIP telephone. This function is used to get documentation on alarms that are received by phone.
Electable: Yes/No (Default value: No)

Test alarm

Test alarm is used to monitor the unit’s functions and connections, a quiet test alarm (alarm type 26) is sent to the alarm receiver within the programmed time.
Time electable in hours 0 -999, 0 = not activated. (Default value: 0)

Reminder alarm

Alarm is acknowledged with green button on CareIP, not by the alarm receiver. If no acknowledgement is done within the programmed time a new alarm will be sent. The CareIP emit a beep every 30s until acknowledge.
Electable: 0-99 minutes, 0 = not activated. (Default value: 0)

User can not interrupt an alarm

Not possible to interrupt an alarm with green button on CareIP
Electable: Yes/No (Default value: No)

Quiet fault indication

No warning sounds in speaker e.g. when mains failure.
Electable: Yes/No (Default value: No)

Inactivity alarm

Inactivity alarm is a function used for automatically sending an alarm (alarm type 14) if no activity occurs within the programmed time.
Electable: 0-999 hours, 0 = off (Default value: 0)

Synthetic speech in loudspeaker

Synthetic speech for alarm type is played in CareIP speaker.
Electable: Yes/No (Default value: No)

Silent call out

No sounds i CareIP speaker during call out.
Electable: Yes/No (Default value: No)

Acknowledge alarm with 4 + #, disconnect med 0 + *

Acknowledge of alarm to SIP telephone can be done both with # and 4.
Disconnection of call with both * and 0
Electable: Yes/No (Default value: No)

Alarm acknowledgement upon disconnection

The alarm is only acknowledged when the unit receives a proper disconnection command from the alarm receiver. If not a proper disconnection command is received the alarm will be called out again.
Electable: Yes/No (Default value: No)

Reassurance indication

CareIP will emit a tone signal (every fifth second) until the alarm is speech connected.
Electable: Yes/No (Default value: No)

Home/Away function

Activation of the Home/Away functions for inactivity alarm. In away mode the inactivity alarm is disabled, the inactivity alarm is reactivated when the home mode is activated. This is controlled with the Green/Yellow button on CareIP.
Electable: 0(Off), 1(Yellow=Away, Green=Home), 2(Yellow=Home, Green=Away)
Default value: 0

Pre alert time for inactivity alarm

Warning tone that alert before an inactivity alarm is being sent. CareIP gives a tone signal once every minute during the programmed time until the alarm is sent.
Electable: 0-60 minutes, 0 = off (Default value: 10)

Register Intruder alarm ON/OFF

Send message about ON/OFF of Intruder alarm.
Electable: Yes/No (Default: No)

Activate output x on Intruder alarm

Pulses on output x in event of intruder alarm ON/OFF and intruder alarm.
Electable: 0(off), 1-3 Output 1-3 (Default: 0)

Synthetic speech to Alarm central

Activate speech (ID) at alarm to an alarm central.
Electable: Yes/No (Default: No)

i-Care Mode

Setting how an i-Care message should be sent.
Electable: 0 (through an i-Care CM server), 1 (as an alarm), 2 (through an i-Care CM server and as an alarm)-3 (as an alarm, but the types 71/73 will be changed to 83/84) (Default: 0)

Elliot - alarm type 54 instead of 10

When programming of Elliot alarm buttons via radio the alarm type is 10 as default, but if this parameter is set, then it will be 54 instead.
Electable: Yes / No (Default: No)

Test alarm to the alarm buttons on the 869/434

Ability to turn on test alarm on radio devices.
Electable: Yes / No (Default: No)

7.6.6 Settings buttons/inputs/output

Input 1-4
Settings for the input function
Activation time for input in ms (10-250 = 100ms-2,5 sec. in steps of 10ms), (Default value: 10 (100ms)).

Alarm type when closed x-yyy 0 = Not active (Default value = 0)

Alarm type when open x-yyy, 0 = Not active (Default value = 0)

Alarm type red button (alarm button)
Electable: x-yyy (Default value: 10 (Emergency alarm))

Alarm type yellow button (function button)
Electable: 1-99 (Default value: 90 (Phone call))

Alarm type green button (stop button)
Electable: 1-99 (Default value: 12 (Reset))

Alarm type for Away mode
Electable: 57(speech) or 98(no speech) (Default value: 57)

Output 1-2

Setting for the output function.
Alarm type for activation (x-yyy, 0 = Not activated) (Default = 0)

Output 3

Configured for connection to a hearing loop system

7.6.7 Configuration of programmed radio units

It is possible to configure the radio units that are programmed in CareIP e.g. what alarm type that shall be transmitted when the radio unit is activated and if test alarm from radio unit shall be activated.

Radio trigger Elliot

Following settings can be made for Elliot (869 MHz).

Alarm button – short press : Alarm type x-yyy
Alarm button – long press : Alarm type x-yyy
Side button – short press : Alarm type x-yyy
Side button – long press : Alarm type x-yyy
Serial number : The units ID (Radio code)
Test alarm from radio unit : Yes/No (Activated/deactivated in conjunction with radio transmission)

Radio transmitters

Following settings can be made for radio transmitter (868 MHz).

Alarm button – short press : Alarm type 1-99
Radio ID : The units ID (Radio code)
Test alarm from radio unit : Yes/No (Must be activated/deactivated in the radio transmitter)

8 ALARM TYPES

All alarms transmitted from CareIP are attached to an alarm type. The alarm type informs the recipient of the cause of the alarm.

Alarm type	Description	Speech
2	System alarm	No
5	Barrier alarm	No
7	Intruder alarm	No
8	System alarm	No
9	Smoke alarm	Yes
10	Emergency alarm	Yes
12	Reset/Stop	No
13	Panic alarm	No
14	Inactivity alarm	Yes
15	Active alarm	No
16	Battery alarm radio unit	No
17	Battery alarm central unit	No
19	Mains failure	No
20	Mains reset	No
21	Operational error radio unit	No
26	Test alarm	No
27	Elevator alarm	Yes
28	Door alarm	Yes
29	Smoke/Fire alarm	Yes
30	Undefined alarm type 1	Yes
31	Undefined alarm type 2	Yes
32	Fire alarm	Yes
34	Gas alarm	Yes
35	Door alarm	No
36	Moisture alarm	No
37	Undefined alarm type 3	No
38	Bed alarm	No
39	Undefined alarm type 4	No
40	Alarm	No
41	Wandering client alarm	No
42	Assistance	No
48	Emergency alarm B, cohabiter	Yes
54	Emergency alarm radio	Yes
56	Home alarm	Yes
57	Away alarm	Yes
66	Time disconnection	No
71	Check-in (Care phone)	No
73	Check-out (Care phone)	No
80	Intruder alarm OFF	No
82	Intruder alarm ON	No
89	Log alarm/Acknowledgement	No
90	Service/phone call	Yes
97	Home alarm	No
98	Away alarm	No
205	Fixed trigger 2	Yes

210	Fall trigger/detector	Yes
215	Personal attack pendent (assault)	No
220	Duty switch	No
225	Pill dispenser – pill not taken	No
226	Pill dispenser – pill taken	No
230	Mat sensor	No
236	Door sensor – open (too long, left open)	Yes
240	Enuresis detector	No
245	Epilepsy detector	No
250	Occupancy detector (bathroom)	No
255	Environmental monitor	Yes
260	Lighting circuit monitor	No
265	Heating system monitor	No
270	Heat detector – high temperature	No
271	Heat detector – low temperature	No
272	Heat detector –temperature rate of rise	No
275	Carbon Monoxide detector	No
280	Bogus caller switch	No
285	Bath sensor – high level	No
290	Chair monitor	No
291	Chair monitor - occupancy	No
295	Bed monitor - occupancy	No

9 MAINTENANCE

9.1 Cleaning

When cleaning the unit including accessories and cables use only a slightly damp cloth. Do not use strong detergents or solvents when cleaning.

9.2 Replacing the battery

The compartment covers on the reverse for battery change and installation may be opened only by authorized person. The battery should be replaced a.s.a.p after battery alarm. Use only battery type specified under accessories. CAUTION – Risk of explosion if battery is replaced by an incorrect type.

When replacing the battery do as following.

- Turn off the unit by setting the switch on the back labelled ⏻ in position o.
- Disconnect the network cable and power supply from the unit.
- Unscrew the screw to the door over the battery compartment.
- Open the battery compartment cover.
- Loosen gently the battery cable contact from the unit.
- Install a new battery of the correct type in the unit.
- Close the battery compartment cover.
- Mount the screw for the battery compartment cover.
- Connect the network cable to the Ethernet socket marked 品 .
- Connect the cable from the power supply to the socket marked ⎓.
- Set the switch marked ⏻ in position I.
- Check that the ON LED lights solid green.

Note! When cleaning and replacing the battery shall the unit be turned off and power supply/network be disconnected

10 ACCESSORIES

Accessory	Type	CareTech art. no
Power supply EU	KINGWALL AS090-075-AB100 alt. HON-KWANG HK-V-075A100-EU	100037
Power supply UK	Corresponding to above	100036
Power supply AU	Corresponding to above	100038
Battery	GP 180AAH4BMX	300046
Network cable	Cat5E UTP TIA568B	
GSM module	CareTech GSM module 9310	100009
PoE module	CareTech PoE module 9330	100043
Radio trigger	ELLIOT 869 MHz	300005

11 TECHNICAL DATA

Carephone	**CareIP**
Dimensions:	200 x 175 x 35 mm (LxWxH)
Power supply:	7,5 VDC power supply, (PoE optional)
Backup battery:	4,8V NiMH
Backup time:	Up to two days
Inputs:	Four inputs
Output:	Three outputs, where of one is a relay output, max 0,7A and another is a connection to a hearing loop system
Communication:	IP/(SIP), (GSM triple band optional)
Protocol	CareTech SIP alarm protocol (CIP), Verklizan UMO XML or Social Care Alarm Internet Protocol (SCAIP), profile 1 and 2
Radio frequency:	869.2125 MHz / 868.35 MHz
Radio receiver class:	1*
Number of radio transmitters:	Up to 10

GSM

Communication:	GSM quad band (850/900/1800/1900 MHz)
GPRS class:	10
SIM card interface:	1,8V and 3V
Protocol	CareTech, Tele Larm/Attendo TT90, Antenna (CPC). Ordinary phone, certain Tunstall, Verklizan UMO XML or Social Care Alarm Internet Protocol (SCAIP), profile 1 and 2

Portable alarm button	**Elliot**
Dimensions:	45 x 30 x 13 mm (LxWxH)
Battery:	3 V lithium battery CR2430
Battery life:	Up to five years
Water resistance:	Complies with IP67

Equipment class: Class 1 radio equipment

Class 1

Environment

This product is intended for indoor use in a normal residential environment.

Temperature:	Operating temperature +5ºC to +35ºC
Humidity:	0% to 75% relative humidity (non-condensed)
Environmental class:	1 (EG-I)

*Refers to radio module”C1”, type 9340.
Radio receiver parameters: Max. usable sensitivity: -113dBm; Average usable sensitivity: ver. 28,7dBuV/m, hor.27,0dBuV/m; Adjacent channel selectivity: -26,2dBm/-28,2dBm; Intermodulation rejection: -36dBm/-37dBm; Spurious response rejection: -30dBm; Blocking or desensitisation: >-16dBm

CareIP can also be equipped with radio module type 9320, which allows maximum security and includes receipt of transmission, automatic transmission repeat, power control and frequency control. See order information for indicating which radio module the unit is equipped with.

CE 0402

Hereby, CareTech AB, Kalix Sweden declare that this equipment is in compliance with the essential requirements and other provisions of Directive 1999/5/EC.

The comprehensive declaration of conformity is available at the address:
CareTech AB, Box 10030, SE-952 27 Kalix, Sweden.

12 ENVIRONMENTAL INFORMATION

This product complies with the requirements of the EU directives, 2002/96/EC (WEEE) and 2006/66/EG.

These directives regulate the product liability for electrical and battery recycling with the purpose of increasing recycling and minimising waste. The unit is marked with the ”crossed out wheeled bin” logo, which indicates that it shall be handed in for recycling.

The product can be returned free of charge to a recycling station that is connected, directly or via a recycling system, to Care Tech or to your distributor. For detailed instructions, please check with your distributor or visit our website, www.caretech.se

Note! The WEEE information and recycling instructions applies to European Union member states only. For other countries please check local legislation or contact your distributor.

Manufactured in accordance with the EU directive, 2002/95/EC (RoHS)

The materials used in the radio trigger wristband and neckband meet the textile safety requirements of Oeko-Tex standard 100.

www.caretech.se